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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,845

07/24/2003

Kunio Yokoi

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EXAMINER

RIDER, JUSTIN W

ART UNIT

PAPER NUMBER

2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/625,845	Applicant(s) YOKOI ET AL.	
	Examiner Justin W. Rider	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/03, 07/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Application filed 24 July 2003. Claims 1-8 are pending.

Information Disclosure Statement

2. The information disclosure statement(s) (IDS) submitted on 07/2003 and 07/2005 is/are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement(s).

Specification

The disclosure is objected to because of the following informalities: It has become state in the art of both voice recognition and speech recognition that both implementations have specific meanings as understood by the examiner. The practice of voice recognition is the practice of simply determining the identity or voice of the person whom is speaking; whereas speech recognition (in which it appears applicant is attempting to disclose) is the art of taking an input utterance and actually determining what is being said and applying the recognized words as deemed appropriate. Otherwise, a clear redefinition of terms in the disclosure would have been necessary. Appropriate correction is suggested.

Claim Objections

3. Claim 2 is objected to because of the following informalities: Claim 2 ends with a semi-colon (;) when it should be a complete sentence ended with a period (.). Appropriate correction is required.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “voice recognition” in claim 1 is used by the claim to mean “recognizing the voice command”, while the accepted meaning is “recognizing the identity of the voice.” The term is indefinite because the specification does not clearly redefine the term. As mentioned under the heading ‘Specification’, “speech recognition” is the recognizing of voice commands.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by

Yamaguchi (JP-A-H11-119792) referred to as **Yamaguchi** hereinafter.

Claim 1: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user, comprising:

- i. a recognizable voice command storing means for storing a plurality of commands as voice [speech] recognition data (paragraph [0010]);
- ii. a voice [speech] recognition means for recognizing the voice command as one of the commands stored in the recognizable voice command storing means (paragraph [0009]);
- iii. a message output means for outputting a message (paragraph [0010], 'and the talk back to which it urges using a **** command instead of said similar type command...');
- iv. a function setting detection means for detecting a function setting of the target device (paragraph [0012], system determines current condition of device in which user command is intended including environmental issues (e.g. whether windows are up, day or night conditions, etc...));
- v. a command executability determination means for determining executability of a command in the function setting detected by the function setting detection means and for providing a correct usage of the voice command inputted by the user when the voice command is determined inexecutable (paragraph [0011], the system urges user to choose another option when an unexecutable command is determined to be input.).

Claim 2: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user as per claim 1 above, wherein:

- i. the command executability determination means includes a relational command list (It is noted that a relational command list is a list that provides a normal command as well as other related 'acceptable' commands for executing the same function) provided to each command

(paragraph [0015], paragraph [0021], ‘comparing a user’s voice data with each of *two or more standard* voice data prepared in the storage section 19,’ [emphasis added]);

ii. the message output means outputs a message for notifying the user of an executable command, executability of which in a current function setting detected by the function setting detection means is determined with reference to the relational command list in addition to outputting a message about a proper usage of the command (paragraph [0022] shows where confirmation messages are given to a user based on normal commands.).

Claim 3: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user as per claim 1 above, further comprising a substitution determination means for substituting the inexecutable command with a command that is executable in the function setting of the target device (paragraph [0024], **Yamaguchi** determines when an inexecutable command is issued and based on a list of related commands, gives the user an option of substitution commands to carry out.), wherein the message output means outputs a message for notifying the user that the voice command is substituted with the executable command (paragraph [0015], ‘When it has a speech synthesis means...’).

Claim 4: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user as per claim 3 above, wherein:

i. the substitution determination means comprises a relational command list including related commands listed for each command (paragraph [0021], ‘comparing a user’s voice data with each of *two or more standard* voice data prepared in the storage section 19,’ [emphasis added]); and

ii. the substituted command is selected from the relational command list (paragraph [0026], 'the dictionary storage section 19 for recognition is equivalent to the *similar command storage means* of this invention,' [emphasis added]).

Claim 6: Yamaguchi discloses a system for equipment control based on voice control commands input from a user as per claim 3 above, wherein the substitution determination means confirms an intention of the user for execution of the substituted command (paragraph [0029]).

Claim 7: Yamaguchi discloses a system for equipment control based on voice control commands input from a user as per claim 6 above, wherein:

i. the substitution determination means comprises a confirmation-required command list including commands that require confirmation of an intention of the user for execution of a substituted command and wherein the substitution determination means refers to the confirmation-required command list when determining whether the substituted command requires the confirmation (paragraphs [0037] – [0039], Yamaguchi discloses a system of codes which determine whether or not commands need confirmation, are forbidden or if a normal command is being established.).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2626

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamaguchi** in view of **Lewis et al. (USPN 6,345,254)** referred to as **Lewis** hereinafter.

Claim 5: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user as per claim 1 above, however, **Yamaguchi** fails to, but **Lewis** does, distinctly disclose wherein the substitution determination means stores a frequency in use of each command expressed by a total number of times that each command has been used by the user and the substituted command is selected based on the frequency (col. 5, lines 5-13, 'to create new or truncated speech commands based on the frequency in which certain command combinations are used;' **Lewis** uses these frequency measures of certain commands in order to provide specific commands based on higher usage.).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to include the teachings of **Lewis** in the system of **Yamaguchi** because event or frequency based methods of improving voice command systems utilizing voice recognition allow for an improvement in accuracy by 'tightening' the constraints to a more user-specific command base (**Lewis**, col. 2, lines 10-29).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamaguchi** in view of **Sawada (USPN 5,754,430)** referred to as **Sawada** hereinafter.

Claim 8: **Yamaguchi** discloses a system for equipment control based on voice control commands input from a user as per claim 1 above, however, **Yamaguchi** fails to, but **Sawada** does, distinctly disclose wherein the voice control system is used for a vehicle navigation system

having a voice control function (col. 3, lines 44-47, in the car navigation system...using a voice recognition device,').

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to include the teachings of **Sawada** in the system of **Yamaguchi** because it provides 'a car navigation system for guiding and navigating a car along a suitable route extending to a destination on the basis of place names,' (**Sawada**, col. 2).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- **Paine w.r.t. Lovinger (USPN 3,586,261)** discloses a voice-operated controller for controlling a space vehicle based on user voice commands.
- **Zeinstra (USPN 4,827,520), Fujimoto (USPN 5,214,707) and Takami et al. (US 2004/0030560 A1)** disclose a vehicle-based voice command control system.
- **Kishi et al. (USPN 5,410,486)** discloses a vehicle navigation system that provides voice messages to a user regarding directions and other navigational issues.
- **Bickley et al. (US 2003/0101060 A1)** discloses the use of historical data for a voice application interface.
- **Kleindienst et al. (USPN 6,598,020)** discloses an adaptive system that utilizes the frequency of a user's voice commands.


Art Unit: 2626

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin W. Rider whose telephone number is (571) 270-1068. The examiner can normally be reached on Monday - Thursday 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.W.R.
06 February 2007


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